

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/08942

A. CLASSIFICATION OF SUBJECT MATTER
Int.Cl⁷ D01F6/40, A41G3/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int.Cl⁷ D01F6/38-6/40, A41G3/00, A61L27/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Jitsuyo Shinan Koho 1926-1996 Toroku Jitsuyo Shinan Koho 1994-2003
Kokai Jitsuyo Shinan Koho 1971-2003 Jitsuyo Shinan Toroku Koho 1996-2003

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
WPI/L

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 02/061187 A (KANEKAFUCHI KAGAKU KOGYO KABUSHIKI KAISHA), 08 August, 2002 (08.08.02), Abstract & JP 2002-227018 A & JP 2002-315765 A	1-4
A	EP 292907 A2 (KANEKAFUCHI KAGAKU KOGYO KABUSHIKI KAISHA), 21 May, 1988 (21.05.88), Claims & JP 63-290595 A & US 5083967 A	1-4
A	JP 60-1401 B2 (KANEKAFUCHI KAGAKU KOGYO KABUSHIKI KAISHA), 14 January, 1985 (14.01.85), Claims; page 2, column 3, lines 23 to 32 & JP 55-158322 A	1-4

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

"I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search
07 October, 2003 (07.10.03)

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28 October, 2003 (28.10.03)

Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 58-4809 A (KANEKAFUCHI KAGAKU KOGYO KABUSHIKI KAISHA), 12 January, 1983 (12.01.83), Claims (Family: none)	1-4
A	JP 56-63006 A (KANEKAFUCHI KAGAKU KOGYO KABUSHIKI KAISHA), 29 May, 1981 (29.05.81), Claims (Family: none)	1-4
A	JP 1-148806 A (KANEKAFUCHI KAGAKU KOGYO KABUSHIKI KAISHA), 12 June, 1989 (12.06.89), Claims; examples 1 to 4 (Family: none)	1-4

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<With Respect to Subject Matters for Search>

Claims 1-4 relate to acrylic synthetic fibers comprising an acrylic copolymer which includes acrylic copolymers widely varying in comonomers and copolymerization ratio. However, the acrylic copolymers which are supported by the description in the meaning of Article 6 of the PCT and are disclosed in the meaning of Article 5 of the PCT are limited to an extremely small part of the copolymers claimed.

Therefore, a search was made for the parts which are support by and disclosed in the description, i.e., fibers made of copolymers which have an acrylonitrile content of 60 mol% or higher and a content of sulfur atoms derived from a sulfo-containing vinyl monomer of 0.15 to 0.50 wt.% and for which the other monomer is a halogenated vinyl monomer.